

EXPANSION DEVICE WITH LOW REFRIGERANT CHARGE MONITORING

ABSTRACT OF THE DISCLOSURE

An air conditioning or refrigeration system includes an expansion device that has a plurality of operating positions. When the expansion device is in a fully open position, the expansion device provides an indication to a system controller regarding that position. The controller responsively determines if the fully open position of the expansion device is caused by an undesirably low amount of refrigerant charge in the system. In one example, the controller rules out other possible reasons for the expansion device being in the fully open position. In one example, the controller automatically shuts down appropriate portions of the system to avoid any component damage that may result from having too low refrigerant amount in the system.

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